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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,842	02/20/2004	Noriyuki Kaifu	03500.010380.4	5483

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EXAMINER

KIKNADZE, IRAKLI

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,842

Applicant(s)

KAIFU ET AL.

Examiner

Irakli Kiknadze

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 39-44 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/184,879.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/20/2004</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

2. Claims 39 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Antonuk et al. (US Patent 5,262,649).

With respect to claim 39, Antonuk teaches an X-ray diagnosis system comprising: a photoelectric converter (46) having a thin film device (52), and transmission means for transferring an electric information obtained by the photoelectric converter to a place where the photoelectric converter is not arranged (see abstract; Figs 1 and 4; column 7, lines 61-65 ; column 8, lines 52-55 and column 17, lines 34-41).

With respect to claim 40, Antonuk teaches an image processor (72) for processing the electric information (column 17, lines 34-41).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Antonuk et al. (US Patent 5,262,649) in view of Onodera (US Patent 4,706,268).

With respect to claim 41, Antonuk teaches claimed invention except that the image processor (72) outputs a drive signal to an X-ray tube. Onodera teaches a sigital radiography system comprising an image processor (4) outputs a drive signal to an X-ray tube (1) (Fig.3; column 3, lines 20-22 and 52-57; column 11, lines 10-20) providing enhanced imaging while keeping the X-ray dose low (column 8, line 60 – column 8, line 4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ teaching of Onodera in the system of Antonuk to output the drive signal to the X-ray source related with the processing operation of image processor in order to provide enhanced imaging while keeping the X-ray dose low.

5. Claims 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizushima et al. (US Patent 4,341,954) in view of Olsson (US Patent 5,376,009).

With respect to claims 42-44, Mizushima teaches a detector provided with a photoelectric converter which comprises a plurality of thin film transistors (200) and a plurality of photoelectric converting elements (100) formed on a silicon semiconductor substrate, the detector comprising: first circuit means comprising a shift resistor (400) for driving the thin film transistor (200); second circuit means comprising and an integrated circuit IC (500) for detecting a signal from the photoelectric converter (100) (column 5, line 53-58; column 8, line 53 – column, line 25; column 11, lines 14-25). Mizushima is silent about flexible circuit means. Olson teaches a flexible circuit substrate (16) connected to a printed circuit board (20) (see abstract; column 2, lines 7-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ teaching of Olson in the detector of Mizushima to provide

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flexible circuit substrate means that comprises one or more the shift resistors and/or integrated circuit IC detachable to the printed circuit board in order to provide detector with a high degree of circuit design flexibility.

Conclusion


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is 571-272-2493. The examiner can normally be reached on 9:00- 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571-272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Irakli Kiknadze
December 10, 2004

IK


EDWARD J. GLICK
SUPERVISOR PATENT EXAMINER